ABSTRACT OF THE DISCLOSURE

A capacitive uterine contraction sensor includes an insulating substrate, a first electrode disposed on one side of the substrate, and a second electrode positioned on the first side of the substrate in a spaced relation to the first electrode. The sensor may also include a conductive standoff sandwiched between the substrate and the second electrode for maintaining the second electrode in spaced relation to the first electrode. The conductive standoff is electrically coupled to the second electrode and electrically isolated from the first electrode. Alternatively, the second electrode may include a spring mechanism used in conjunction with a standoff to maintain the second electrode in spaced relation to the first electrode. The spring mechanism is electrically isolated from the first electrode. The spring mechanism is electrically isolated from the first electrode and enables the second electrode to move toward or away from the first electrode.